



RESEARCH ARTICLE

Assessment of Student Knowledge and Opinions of Older Adults and Aging: A pilot Study

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Abstract

Introduction: Population aging continues to be a global phenomenon. Those working in health professions will continue to provide care for the health and wellbeing of this growing population. Few studies have investigated the level of ageism and knowledge of older adults among students pursuing health-related careers.

Methods: This pilot study was designed to investigate the relationship between a student's aging knowledge and ageist attitudes. A survey was distributed to a convenience sample of students enrolled at a Mid-Western University.

Results: The sample (n=123) was mostly women (79%), aged 19-60, white (71), and seniors in undergraduate studies (53%). The overall score of knowledge (Palmore Facts on Aging Quiz) was low ($M = 10.65$, $SD = 2.99$), possible score range 0-25. Overall attitudes towards older adults was positive (Fraboni Scale of Ageism (FSA)) ($M = 51.70$, $SD = 8.2$), possible score range 23-92, neutral score 57.5. Results indicated a significant negative relationship between knowledge and ageism, $r(117) = -0.216$, $p < 0.05$; students with higher knowledge scores, scored lower in the ageism scale, implying more positive attitudes in students of greater knowledge.

Conclusions: Strategies for action reducing ageism and the importance of student education are key.

Keywords

Ageism, Older adults, Aging, Health professions

often mean that the proportion of the population in the older ages (typically understood as 65+) increases. This rapid growth in the aging population is not unique to the United States. This is also occurring in the UK, Canada and Japan, moving geriatric care to the top of the list of health care concerns [2], indicating that health care professionals will be among those impacted by this population trend. Global estimates show that by 2020, nurses will spend 75% of their working hours caring for older adults [2]. The knowledge health professionals possess about the health and emotional needs of older adults will be a critical component in providing an effective, caring environment [3]. As future health care professionals continue to provide care for the health and wellbeing of this growing population, ageism becomes an increasing concern.

Ageism is defined as a process of systemic stereotyping of and discrimination against people based on age [4]. Literature does suggest a relationship exists between knowledge and attitudes, particularly as it relates to curriculum and experiences. In a 2014 study by Bergman and Erickson, 300 college students were surveyed to explore the effect, if any, that aging-related course work and formal contact with older adults might have. Their findings indicate that aging-related coursework in addition to formal contact with older adults lead to students having increased interest in learning about and working with older adults. These students also reported lower levels of anxiety and ageism. Wurtele and Maruyama [5] studied the effect a particular assignment and lecture on aging had on the attitudes of undergraduate students toward older adults. Their results suggest attitude change was seen upon the com-

Introduction

The proportion of older adults in our society is increasing at rates never seen before. By the year 2030, 1 in every 5 United States residents will be of age 65+ [1]. The aging of the population will have broad implications for the United States. By "aging," demographers



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pletion of the assignment and lecture, both which were based on educating students about the misconceptions and stereotypes of aging. Butler and Baghi [6] assessed attitude changes of undergraduate students towards older adults through a pre-and post-test evaluation after completion of a service-learning program. Their findings indicate that students exposed to positive experiences with older adults hold more positive attitudes toward that population overall.

Specific to health care, research has shown there is value in measuring students' knowledge and attitudes about older adults due to the effect they have on the care students extend to older adults [7]. Studies indicate that attitudes, defined as a learned predisposition toward a target (object or person), that have been formed from culture and lack of exposure or knowledge [8] produce negative attitudes that appear to influence undergraduates against working with older adults. In a study of fourth-year nursing students [9], positive relationships with grandparents were linked to values such as respect and caring toward older adults, while clinical and work experiences were associated with a dislike for geriatric nursing, creating an incongruity between values and work attitudes. This implies the quality of the interaction occurring with older adults is impactful. For instance, another study featured beginning nursing students, working in pairs, who met with high-functioning older adults, four times over eight months for health promotion activities [10]. Students' knowledge and attitudes were assessed at baseline and prior to each visit; social goals were assessed after each visit. Multilevel growth curves showed increases in student's knowledge about aging and positive views on older adult care, however compassionate goals, (motivation to help older adults) did not change [10]. There is need to further examine the relationship of knowledge as it relates to attitudes across the health professions, to explore measures that can improve attitudes and ultimately, outcomes for older adults.

The purpose of this study was to assess students' attitudes toward older adults and examine whether a relationship exists between the level of knowledge of aging and ageist attitudes.

Methods

This was a pilot study using a test-survey. The survey was distributed to a convenience sample of undergraduate and graduate students enrolled in Public Health Sciences courses at a Midwestern university using either the online Qualitrics® data collection software or a pen and paper questionnaire. Online students were administered the online survey and face-to-face students were administered a pen and paper survey. The test-survey includes questions measuring knowledge of older adults, questions measuring level of ageism, and demographic information. Participant knowledge was assessed by answering 25 multiple-choice questions

from the Palmore Facts on Aging Quiz (FAQ) developed by Harris, Changas, and Palmore [11]. Participants received 1 point per each correctly answered question, for a total of 25 points possible. Higher scores indicate a greater level of knowledge.

To assess level of ageism, participants completed the Fraboni Scale of Ageism (FSA) developed by Fraboni, Saltstone, and Hughes (1990) [12] and later revised by Rupp, Vodanovich, and Credé [13]. This scale consists of 23 statements displayed as 4-point Likert scale on how strongly the respondent agreed or disagreed with each statement (1= strongly disagree to 4= strongly agree). Scores can range from 23-92, with a neutral score equaling 57.5. Higher scores indicate greater levels of ageism.

In the last section of the survey, participants self-reported demographic information such as gender, age, race/ethnicity, program of study, and year in degree program. The survey was approved by the university's Institutional Review Board.

The primary outcomes of interest for this study was the knowledge score attained and its relationship to level of ageism demonstrated. All data were analyzed using IBM SPSS Statistics version 20. Differences on participant outcomes (e.g., total score for knowledge and total score for ageism) were assessed using the independent t-test based on the type of major (e.g., health professions or other) Type I error, alpha was set at 0.01.

Results

One hundred twenty three (N=123) students completed the survey. The sample was mostly women (79%), age 19-60, white/non-Hispanic (71%) and a senior in undergraduate studies (53%) (Table 1). The majority of students (60%) had taken 1-3 aging courses followed by 29% having taken none and 7% having taken 4 to 6 or more than seven, respectively. The overall score of knowledge was low (M=10.65, SD=2.99). And overall attitudes towards older adults was mostly positive, average score slightly below neutral (M=51.70, SD=8.2). No gender differences were noted (results) and therefore, data were collapsed across gender for further analyses. To evaluate the primary relationship of interest in this study, Pearson's Correlation Coefficients were computed between knowledge and ageism. Results indicated a significant negative relationship between knowledge and ageism, $r(119) = -0.216$, $p < 0.05$. An additional Pearson's Correlation Coefficient finding also suggests a significant relationship between age of the participant and ageism, $r(116) = -0.234$, $p < 0.05$. No differences were not found to be significant based on knowledge and ageism scores for the majors (e.g. health professions or other).

Discussion

The significant negative relationship found between knowledge and ageism suggests that students who di-

Table 1: Participant characteristics (N = 123).

	n	(%)
Sex (n = 121)		
Male	26	21.5
Female	95	78.5
Age (n = 123)		
18-24 years	63	53.7
25-34 years	34	27.6
35-64 years	26	18.7
Race/Ethnicity (n = 121)		
White, non-Hispanic	86	71.1
African American	4	3.3
Hispanic or Latino	12	9.9
Asian / Pacific Islander	11	9.1
Native American or American Indian	3	2.5
Other	5	4.1
Year in College (n = 120)		
Year 1	1	.8
Year 2	14	11.7
Year 3	26	21.7
Year 4	63	52.5
Graduate School	16	13.3
Current Major (n = 119)		
Health Professions	76	63.9
Other	43	36.1

splayed a greater level of knowledge on the FAQ, exhibited a lower score on the FSA, implying more positive attitudes in those of greater knowledge. This result shows support for the concept that knowledge about aging can positively impact attitudes toward older adults. The overall knowledge score of students was low, indicating an opportunity to better equip students in content surrounding knowledge of aging in an effort to improve their attitudes towards older adults. An additional finding showed that students of greater age scored lower on the FSA; thereby suggesting older students possess more positive attitudes towards older adults. Consequently, there is potential to explore opportunities that purposefully engage students of different ages with each other throughout the duration of a course and the impact this engagement can have on attitudes. And there is value in expanding upon existing research that interaction with older adults can have a positive influence on attitudes towards older adults.

Limitations

The results from this study should be viewed within context of the limitations. This was a pilot study with a test-survey instrument. The study population was a convenience sample, limited to students from one Midwestern state. The survey was distributed using two modalities (paper and online Qualtrics®) and therefore is limited to those who were present for in class ses-

sions or able to use a computer. The results of this pilot study necessitate additional research to establish an effect size, expanding to additional, relevant disciplines to increase sample size.

Conclusions

The results show support for the concept that knowledge about aging can positively impact attitudes toward older adults. Educators teaching courses within the health professions should examine how revising curriculum and providing interactive opportunities with older adults can positively influence attitudes of students. Recent educational interventions such as the PEACE (Positive Education about Aging and Contact Experiences) model have shown some success with students [14]. Additionally, professionals currently working in communities with older adults should be assessed to examine if educational interventions are necessary. Aging populations are a global trend [15-17]. The need for health care professionals to be educated on matters of aging is rising, and the task of improving attitudes towards older adults is a necessity. Future research is necessary to evaluate relationships between additional variables such as number of aging studies courses taken and the impact on level of knowledge and ageism, and the impact of positive contact with older adults and how often contact occurs.

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Conflict of Interests

None to Report.

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